10

15

20

ABSTRACT OF THE DISCLOSURE

A discharge capacity retention of a non-aqueous secondary battery is enhanced by incorporating into its non-aqueous electrolytic solution a small amount of a substituted diphenyldisulfide derivative in which each of the diphenyl groups has a substituent such as alkoxy, alkenyloxy, alkynyloxy, cycloalkyloxy, aryloxy, acyloxy, alkanesulfonyloxy, arylsulfonyloxy, alkoxycarbonyloxy, aryloxycarbonyloxy, halogen, CF₃, CCl₃, or CBr₃. Preferably, a small amount of methyl 2-propylcarbonate, 2-propynyl methanesulfonate, 1,3-propanesultone, divinylsulfone, 1,4-butanediol dimethanesulfonate or cyclohexylbenzene is further incorporated.